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DATE: February 27, 2007
RE: US Patent Application 10/527,729
SAFETY MONITORING FOR A PEOPLE MOVER (Stripling et al.)
Our File: OT-5075

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Appellant: RALPH STRIPLING ET AL .)
Serial No. 10/527,729) Group Art Unit: 3651
Filed: March 14, 2005) Examiner: L. Nicholson III
For: SAFETY MONITORING FOR A)
PEOPLE MOVER)

APPEAL BRIEF

1. REAL PARTY IN INTEREST

The real party in interest in this appeal is Otis Elevator Company. Ownership by Otis Elevator Company is established by assignment document recorded for this application on March 14, 2005 on Reel 016909 Frame 0926.

2. RELATED APPEALS AND INTERFERENCES

Appellant knows of no related patent applications or patents under any appeal or interference proceeding.

3. STATUS OF CLAIMS

Currently, claims 1-7 and 9-11 are rejected. Claim 8 has been canceled. Claims 1-7 and 9-11 are being appealed.

4. STATUS OF AMENDMENTS

All amendments have been entered.

5. SUMMARY OF CLAIMED SUBJECT MATTER

Referring to Figures 1 and 2, a people mover includes an endless tread belt (6) formed from several tread elements (4) connected to one another, which is driven by a drive unit about a

first and second reversal point (22), and a side skirt (24) that moves along with the tread belt (6). The side skirt (24) on the tread elements (4) has flange elements (28) jointed to the tread belt and bridge elements (30) connected movably relative to the flange elements (2). A sensor having a limited detection range perpendicular to a circulating direction of the side skirt (24), and a plurality of marking elements (34) arranged in a line on the side skirt (24) along the circulating direction and having a limited width perpendicular to the circulating direction. The sensor is simple and economical and provides for detecting the missing bridge elements and missing tread elements, as well as detecting if the bridge and tread element are out of their correct position. See page 7 of the specification.

6. GROUND OF REJECTION TO BE REVIEWED ON APPEAL

A. Are the claims 1-4, 10, and 11 properly rejected under 35 U.S.C § 103(a) as being unpatentable over Kubota (U.S. 5,622,246) in view of Kotkata (U.S. 4,863,006)?

B. Is the claim 5 properly rejected under 35 U.S.C § 103(a) as being unpatentable over Kubota in view of Kotkata, further in view of Stoxen (U.S. 6,601,688)?

C. Is the claim 9 properly rejected under 35 U.S.C. § 103(a) as being unpatentable over Kubota in view of Kotkata, further in view of Spannhake (U.S. 6,267,219)?

7. ARGUMENT

A. **Rejection under 35 U.S.C § 103(a) based on Kubota and Kotkata**

1. **Claims 1, 4, 10, and 11**

For an obviousness rejection to be proper, the Examiner must meet the burden of establishing the following three prong test: (1) all elements of the invention are disclosed in the prior art; (2) the prior art relied upon, coupled with knowledge generally available in the art at the time of the invention, must contain some suggestion or incentive that would have motivated the skilled artisan to modify a reference or combined references; and (3) the proposed modification of the prior art must have had a reasonable expectation of success, determined from the vantage

point of the skilled artisan at the time the invention was made. *In re Fine*, 5 U.S.P.Q.2d 1596, 1598 (Fed. Cir. 1988); *In Re Wilson*, 165 U.S.P.Q. 494, 496 (C.C.P.A. 1970).

The Examiner has not met the first prong of the test, as all of the elements of the claim are not disclosed in the prior art. All of the claims include the following element: "a plurality of marking elements (34) arranged in a line on the flange elements (28) and the bridge elements (30) along the circulating direction and having a limited width perpendicular to the circulating direction." The Examiner asserts that "Kubota discloses marking elements (811, 821, 831) arranged in a non-continuous line on the bridge elements (412, 423) and arranged in a non-continuous line on the flange elements (410, 430)." This statement is incorrect and wrongly associates elements of Kubota with the elements of Appellant's claimed invention.

First, the association of vertical links 811, 821, and 831 as marking elements is an incorrect association. Kubota teaches that vertical links 811, 821, and 831 are stretched between the upper links 412 and 423 and lower links 512 and 513 which constitute the parallel links. There is nothing in Kubota that discloses that the vertical links are "marking elements." As defined in Appellant's specification, the marking elements are detected by the sensor. See page 5 of the specification. Moreover, there is nothing in Kubota that would teach why marking elements would be necessary in Kubota. Instead, the vertical links 811, 821, 831 connect the upper links 412, 423 to the lower links 512, 513. There is nothing in the specification that describes the links as marking elements. Accordingly, the association of the vertical links 811, 821, 831 as marking elements is improper.

Second, the claim recites "a plurality of marking elements (34) arranged in a line on the flange elements (28) and the bridge elements (3)." The Examiner asserts that the marking elements (811, 821, 831) are arranged in a non-continuous line on the bridge elements (412, 423) and arranged in a non-continuous line on the flange elements (410, 430). However, Figure 4 of Kubota illustrates that marking elements 811, 821, and 831 are not arranged on flange elements 410 and 430. Instead, marking elements 811, 821, and 831 are connected at a point on only the bridge elements 412 and 423 and the marking elements are arranged perpendicular to the flange elements. Accordingly, Kubota does not teach all of the elements of the claim and specifically they do not teach or suggest: "a plurality of marking elements (34) arranged in a line on the

flange elements (28) and the bridge elements (30) along the circulating direction and having a limited width perpendicular to the circulating direction.”

In addition, Kotkata does not remedy the deficiencies of Kubota. While Kotkata does teach a sensor, the sensor arrangement is completely different and does not interact with marking elements, as recited in the claims. Instead, the sensor includes light barriers built into the balustrade at the upper and lower ends of the inclined run and connected to an electronic evaluating circuit. As the steps pass the light barriers, a periodic bright-dark pattern is generated which is compared by the evaluating circuit with a stored pattern for normal operation. If a change occurs in the monitored pattern, the escalator is stopped. Thus, there are no marking elements that interact with the sensors and thus, Kotkata does not teach the marking elements either. Accordingly, none of the cited references teach the claimed marking elements.

In addition, an Examiner cannot establish obviousness by locating references that describe various aspects of a patent applicant's invention without also providing evidence of the motivating force which would have impelled one skilled in the art to do what the patent applicant has done. *Ex parte Levengood*, 28 U.S.P.Q.2d 1300 (Bd. Pat. App. Int. 1993). The references, when viewed by themselves and not in retrospect, must suggest the invention. *In Re Skoll*, 187 U.S.P.Q. 481 (C.C.P.A. 1975). In this case, there is no teaching or suggestion to monitor the “flange elements” or the “bridge elements” in Kubota. In fact, neither Kubota nor Kotkata provides any reason as to why the “flange elements” or the “bridge elements” should be monitored. As such, one skilled in the art would not have combined Kubota with Kotkata.

Appellant further maintain that the Examiner has used an improper standard in arriving at the rejection of the above claims. In applying Section 103, the U.S. Court of Appeals for the Federal Circuit has consistently held that one must consider both the invention and the prior art “as a whole,” not from improper hindsight gained from consideration of the claimed invention. See *Interconnect Planning Corp. v. Feil*, 227 U.S.P.Q. 543, 551 (Fed. Cir. 1985) and cases cited therein. According to the Interconnect court

“[n]ot only must the claimed invention as a whole be evaluated, but so also must the references as a whole, so that their teachings are applied in the context of their significance to a technician at the time - a technician without our knowledge of the solution.” *Id.*

When, as here, the Section 103 rejection was based on selective combination of the prior art references to allegedly render a subsequent invention obvious, "there must be some reason for the combination other than the hind sight gleaned from the invention itself." *Id.* Stated in another way, "[i]t is impermissible to use the claimed invention as an instruction manual or 'template' to piece together the teachings of the prior art so that the claimed invention is rendered obvious." *In re Fritch*, 23 U.S.P.Q.2d 1780, 1784 (Fed. Cir. 1992). It is improper for the Examiner to use Applicants' specification as a road map to reject the claims. There is nothing in either Kubota or Kotkaka that would suggest locating marking elements in a line on the flange elements and bridge elements of the tread elements or any suggestion as to why someone would want to monitor the links in Kubota.

Accordingly, this rejection is improper and Appellant respectfully requests that this rejection be reversed.

2. Claim 2

Claim 2 includes the same elements as claim 1 and thus, the rejection is contested for the same reasons as stated above. In addition, the rejection of claim 2 is also contested because the element recited in claim 2 is not disclosed in any of the cited references. The Examiner asserts that Kubota teaches "a rib (O₄₁, O₄₂, O₄₃) provided on each of the flange elements and bridge elements of the side skirt." However, the claim recites "wherein, on each of the flange elements (28) and bridge elements (30) of the side skirt (24), a rib (32) is provided that serves the detection of flange element (28) or bridge element (30) by sensor (38) and that is arranged on a side of the side skirt (24) that is opposite from the visible side." (Emphasis supplied.) The Examiner has not pointed to any reference that discloses this element. Kubota teaches that O₄₁, O₄₂, O₄₃ are pins that hold the links to the steps. There is nothing in Kubota that teaches that O₄₁, O₄₂, O₄₃ serves the detection of flange element or bridge element by the sensor. Accordingly, this rejection is improper and Appellant respectfully requests that this rejection be reversed.

3. Claim 3

Claim 3 includes the same elements as claim 1 and thus, the rejection is contested for the same reasons as stated above. In addition, the rejection of claim 3 is also contested because the element recited in claim 3 is not disclosed in any of the cited references. The Examiner asserts that Kubota teaches "a rib (O₄₁, O₄₂, O₄₃) provided on each of the flange elements and bridge

clements of the side skirt, wherein the ribs are arranged in series essentially along a straight line in a linear area of the people mover.” However, the claim recites, “wherein the ribs (32) are arranged in series essentially along a straight line in a linear area of people mover (2), the sensor (38) being constructed such that it detects interruption in the rib series (36).” The Examiner has not pointed to any reference that discloses this element. There is nothing in Kubota that teaches that the sensor is constructed such that it detects an interruption in the rib series. Moreover, there is no motivation to combine Kubota with Koktaka in order for O₄₁, O₄₂, O₄₃, which are pins, to be constructed such that they detect an interruption in the series. The function of the pins is to hold the links to the steps. There is no reason why any person skilled in the art would think that the pins could serve as rib series. Accordingly, this rejection is improper and Appellant respectfully requests that this rejection be reversed.

4. Claim 5

Claim 5 includes the same elements as claim 1 and thus, the rejection is contested for the same reasons as stated above. In addition Stoxen does not remedy the deficiencies of Kubota and Kokkata. Accordingly, this rejection is improper and Appellant respectfully requests that this rejection be reversed.


5. Claim 9

Claim 9 includes the same elements as claim 1 and thus, the rejection is contested for the same reasons as stated above. In addition Spannhake does not remedy the deficiencies of Kubota and Kokkata. Accordingly, this rejection is improper and Appellant respectfully requests that this rejection be reversed.

B. Conclusion

For the reasons cited above, Appellant respectfully submits that this application is in condition for allowance and requests reversal of the outstanding rejections.

Respectfully submitted,

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February 27, 2007

8. CLAIMS APPENDIX

Appealed Claims

1. People mover (2) comprising:

an endless tread belt (6) formed from several tread elements (4) connected to one another, which is driven by a drive unit about a first and second reversal point (22);

a side skirt (24) moved concurrently with the tread belt (6), the side skirt (24) on the tread elements (4) comprising flange elements (28) joined to the tread belt and bridge elements (30) connected movably relative to the flange elements (28);

a sensor (38) which is arranged adjacent to the side skirt (24), the sensor (38) having a limited detection range perpendicular to a circulating direction of the side skirt (24) ; and

a plurality of marking elements (34) arranged in a line on the flange elements (28) and the bridge elements (30) along the circulating direction and having a limited width perpendicular to the circulating direction.

2. People mover (2) according to Claim 1, wherein, on each of the flange elements (28) and bridge elements (30) of the side skirt (24), a rib (32) is provided that serves the detection of flange element (28) or bridge element (30) by sensor (38) and that is arranged on a side of the side skirt (24) that is opposite from the visible side.

3. People mover (2) according to Claim 2, wherein the ribs (32) are arranged in series essentially along a straight line in a linear area of people mover (2), the sensor (38) being constructed such that it detects interruption in the rib series (36).

4. People mover (2) according to one of Claims 1-3, wherein the sensor (38) is a noncontact sensor.

5. People mover (2) according to Claim 4, wherein the sensor (38) is a magnetic sensor.

6. People mover (2) according to one of Claims 2-3, the flange elements (28) and bridge elements (30) are manufactured from aluminum material and the ribs (32) are constructed in one piece therewith, and wherein the plurality of marking elements (34) are clips and at least one clip of spring steel is provided on the rib (32) of each flange element (28) and each bridge element (30).

7. People mover (2) according to Claim 6, wherein the clips (34) are essentially half as long as the corresponding ribs (32).

9. People mover (2) according to one of Claims 1-3, wherein two of the sensors (38) are connected in series.

10. People mover (2) according to one of Claims 1-3, wherein the plurality of marking elements (34) are clips and a clip (34) is provided for each flange element (28) or bridge element (30).

11. People mover (2) according to Claim 1, wherein the plurality of marking elements (34) is arranged in a non-continuous line along the flange elements (28) and the bridge elements (30).

9. EVIDENCE APPENDIX

None

10. RELATED PROCEEDINGS APPENDIX

None